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(71) Applicant (for all designated States except US): **LAIRD TECHNOLOGIES, INC.** [US/US]; Shielding Way, Delaware Water Gap, PA 18327 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **JOHNSON,**

Richard, Norman [US/US]; 1504 Vanessa Circle, Encinitas, CA 92024 (US). **VAN HAASTER, Philip** [US/US]; 3780 Huron Circle, Corona, CA 92881 (US).

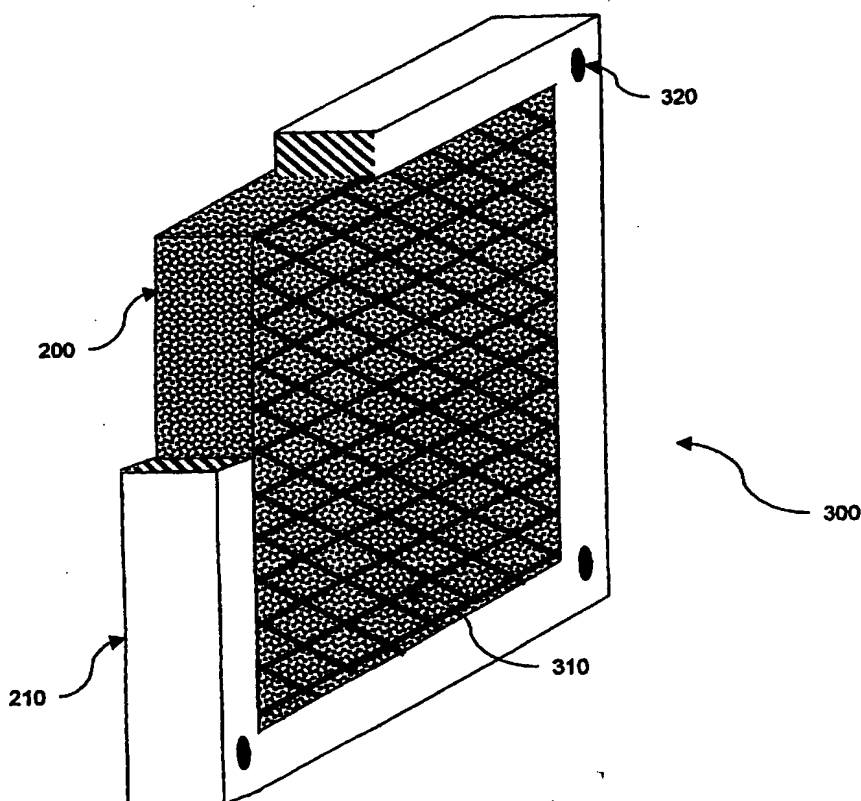
(74) Agents: **LEVY, Gerald et al.**; Pitney, Hardin, Kipp & Szuch L.L.P., 685 Third Avenue, New York, NY 10017-4024 (US).

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(54) Title: EMI-ABSORBING AIR FILTER



(57) Abstract: Electromagnetic-energy absorbing materials are used to treat air filters (300), such as those used in association with electronic equipment thereby suppressing the transmission of electromagnetic interference (EMI) therethrough. Disclosed are processes and materials for applying EMI-absorbing materials to air filters thereby improving EMI-shielding effectiveness in an economically efficient manner. In one embodiment, an absorptive solution (110) is prepared using an absorptive material and a binding agent. A heavy coating of absorbing solution is applied (120) to an air filter substrate (100), for example by dipping or spraying. Excess absorbing material is subsequently removed (130) and the absorbing material cured (140), such that the passage of air through the filter remains substantially unimpeded. The resulting absorptive air filter is then optionally treated (160) with a flame retardant to meet a predetermined safety standard.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01D 46/00

US CL : 055/385.6,385.7,524, DIG.5; 174 35R,35MS; 361/816,818; 427/244

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 055/385.6,385.7,524, DIG.5; 174 35R,35MS; 361/816,818; 427/244

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST txt. search terms: EMI, electromagnetic, filter, vent, air filter

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 2003/0085050 A1 (ZARGANIS et al.) 08 May 2003, Figs. 1-4, page 1 par. [0007], page 2 pars. [0013]-[0022], page 3 par.[0029]-page 4 par[0042].	1-6,10-11,14-16,18-24,28,31-36
X	US 5,506,047 A (HEDRICK et al.) 09 April 1996, Figs. 1-2, col. 2 line 45-col. 6 line 25.	1-6,10-24,26-28,31-36
X	US 5,431,974 A (PIERCE) 11 July 1995, Figs. 1-5, col. 3 lines 25-50.	1-6,12-16,18-20
A,P	US 6,552,900 B1 (HOEFER et al.) 22 April 2003.	1-36
A	US 6,426,459 B1 (MITCHELL) 30 July 2002.	1-36
A	US 6,211,458 B1 (MITCHELL et al.) 03 April 2001.	1-36
A	US 6,171,357 B1 (GUTTMANN) 09 January 2001.	1-36
A	US 6,063,152 A (TETER) 16 MAY 2000.	1-36
A	US 5,519,168 A (OWENS) 21 May 1996.	1-36



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Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Duane S. Smith

Telephone No. 571-272-0987

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3,546,359 A (CICCARELLI et al.) 08 December 1970.	1-36